



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,583	12/18/2001	Maurilio Cometto	ANDIP002	9533
22434	7590	02/27/2006	EXAMINER	
BEYER WEAVER & THOMAS LLP			JEAN GILLES, JUDE	
P.O. BOX 70250			ART UNIT	PAPER NUMBER
OAKLAND, CA 94612-0250			2143	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/026,583	COMETTO ET AL.
	Examiner	Art Unit
	Jude J. Jean-Gilles	2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 December 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-69 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 December 2001 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 12/06/2005.

Response to Amendment

1. This action is responsive to the application filed on 12/06/2005. Claims 1, 6, 22, 44, 49, 63, and 67 were amended. No new claims have been added. Claims 1-69 are pending. Claims 1-69 represent a method and apparatus for "Network Congestion."

Response to Arguments

2. Applicant's arguments with respect to claims 1, 1, 22, 44, 63, and 67 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new ground of rejection as explained here below, necessitated by Applicant substantial amendment (i.e., a method wherein the first instruction is based on the operation of characterizing of traffic flow at the network switch) to the claims which significantly affected the scope thereof.

The dependent claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-69** are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (Li), U.S. Patent No. 6,757,248 B1, in view of Black et al (Black), Patent No. 6,614,796 B1.

Regarding **claim 1**, Li discloses the invention substantially as claimed. Although Li teaches method for controlling congestion at a network switch (fig. 3), the method comprising:

receiving a frame (having a source identifier field corresponding to a source node and a destination identifier field corresponding to a destination node), the frame having been transmitted to the network switch through a first intermediate switch between the network switch and the source node (see *Li, column 11, lines 4-50; column 23, lines 1-36*);

characterizing traffic flow at the network (see *Li, column 11, lines 4-50; column 23, lines 1-36*); and

sending a first instruction from the network switch to the first intermediate switch for the first intermediate switch to control traffic from the source node to the destination node wherein the first instruction is based on the operation of characterizing of traffic flow at the network switch (see *Li, column 11, lines 4-50; column 23, lines 1-36*). Notice

that Li does not specifically explain the details of the data being received from the source node to the destination node through a frame having a source identifier field corresponding to the source node and a destination identifier field corresponding to the destination node.

In the same field of endeavor, the combination Li-Black discloses a "...A

connection response having the format of FIG. 14B is broadcast by a port that has serviced a
camp list entry, and indicates that a connection may be initiated over a backplane data channel
specified in field 302. A
connection response results in the clearing of the requestor scoreboard for the requestor ID
given in field 304 of the response frame, and it also results in setting the responder scoreboard
for the destination port. The port that own the allocated channel and the channel number are
entered into the age list on the initial allocation of the channel. A responder port that resides
on the same switch chip as the requester, indicating a chip-local connection, must still
broadcast a response frame so that the responder scoreboard is updated in all the other switch
chips..." [see *Black, column 43, lines 54-63*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Black's teachings of a method using a frame having a source identifier field corresponding to the source node and a destination identifier field corresponding to the destination node with the teachings of Li, for the purpose of satisfying a need for a new and efficient mechanism to improve the performance in high-speed packet-switched networks, as stated by Li in lines 28-34 of column 4. By this rationale, **claim 1** is rejected.

Regarding **claim 2**, the combination Li-Black discloses the method of claim 1, wherein the first intermediate switch is an edge switch coupled to the source node (see Black; column 15, lines 34-67. Note the “hold back flow control” represents the message from the switch).

Regarding **claim 3**, the combination Li-Black discloses the method of claim 2, wherein the first instruction sent to the first intermediate switch comprises an edge quench frame (see Black; column 15, lines 34-67).

Regarding **claim 4**, the combination Li-Black discloses the method of claim 3, wherein the edge quench frame has a source identifier field corresponding to the destination node and a destination identifier field corresponding to the source node (see Black; column 43, lines 50-67; column 44, lines 1-23).

Regarding **claim 5**, the combination Li-Black discloses the method of claim 4, wherein the edge quench frame includes network switch congestion information (see Black; column 15, lines 34-67).

Regarding **claim 6**, the combination Li-Black discloses the method of claim 5, wherein the edge quench frame includes network switch queue level information that indicates whether an optimal queue level has been exceeded (see Black; column 15, lines 34-67).

Regarding **claim 7**, the combination Li-Black discloses the method of claim 6, wherein the edge quench frame directs the first intermediate switch to control the allowed rate for transmitting from the source node and the destination node by half (see Black; column 15, lines 34-67).

Regarding **claim 8**, the combination Li-Black discloses the method of claim 7, wherein the first intermediate switch and the network switch are connected using fibre channel (see Black; column 15, lines 34-67).

Regarding **claim 9**, the combination Li-Black discloses the method of claim 1, wherein the frame was transmitted through a second intermediate switch between the first intermediate switch and the network switch (see Black; column 15, lines 34-67).

Regarding **claim 10**, the combination Li-Black discloses the method of claim 9, further comprising: sending a second instruction from the network to the second intermediate switch to control traffic from the source node to the destination node (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 11**, the combination Li-Black discloses the method of claim 10, wherein the first instruction sent to the first intermediate switch comprises a path quench frame (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 12**, the combination Li-Black discloses the method of claim 11, wherein the second instruction sent to the second intermediate switch comprises the path quench frame(see Black; column 15, lines 34-67; column 29, lines 5-27).

Regarding **claim 13**, the combination Li-Black discloses the method of claim 12, wherein the path quench frame has a source identifier field corresponding to the destination node and a destination identifier field corresponding to the source node. (see Black; column 43, lines 50-67; column 44, lines 1-23).

Regarding **claim 14**, the combination Li-Black discloses the method of claim 13, wherein the path quench frame includes network switch congestion information (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 15**, the combination Li-Black discloses the method of claim 14, wherein the path quench frame includes network switch queue level information (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 16**, the combination Li-Black discloses the method of claim 15, wherein the path quench frame directs the first and second intermediate switches to reduce the allowed rate for transmitting from the source node and the destination node to 0 bps (see Black; column 18, lines 2-62).

Regarding **claim 17**, the combination Li-Black discloses the method of claim 1, wherein characterizing traffic flow comprises checking the network switch queue level (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 18**, the combination Li-Black discloses the method of claim 17, wherein characterizing traffic flow comprises determining whether to transmit path quench or edge quench frames (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 19**, the combination Li-Black discloses the method of claim 18, wherein path quench frames are transmitted when the queue level exceeds a high threshold (see Black; column 18, lines 12-62).

Regarding **claim 20**, the combination Li-Black discloses the method of claim 19, wherein edge quench frames are transmitted when the queue level is between a high threshold and a low threshold (see Black; column 18, lines 12-62).

Regarding **claim 21**, the combination Li-Black discloses the method of claim 20, wherein the edge quench and path quench frames include a buffer level indicator (see Black; column 19, lines 24-67; column 20, lines 1-30).

Regarding **claim 22**, the combination Li-Black discloses a method for controlling traffic flow between first and second end nodes through first and second intermediate nodes, the method comprising:

transmitting a first frame having a source identifier corresponding to the first end node and a destination identifier corresponding to the second end node, wherein the frame is transmitted at a first intermediate node to a second intermediate node between the first intermediate node and the second end node (see *Li, column 11, lines 4-50; column 23, lines 1-36*);

receiving a second frame that was generated by the second intermediate node, the second frame having a source identifier corresponding to the second end node and a destination identifier corresponding to the first end node, wherein the second frame is received at the first intermediate node and includes instructions for the first intermediate node to adjust the current allowed rate from the first end node to the second end node (see *Li, column 11, lines 4-50; column 23, lines 1-36*); and

at the first intermediate node adjusting the current allowed rate from the first end node to the second end node upon receiving the second frame (see Black; column 13, lines 43-67; column 14, lines 1-43; column 18, lines 12-62).

Regarding **claim 23**, the combination Li-Black discloses the method of claim 22, wherein the current allowed rate can not exceed the maximum allowed rate.

Regarding **claim 24**, the combination Li-Black discloses the method of claim 22, wherein adjusting the current allowed rate comprises: determining that the second frame is an edge quench frame (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 25**, the combination Li-Black discloses the method of claim 24, wherein the current allowed rate is adjusted after it is determined that the first intermediate node is an edge switch coupled to the first end node (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 26**, the combination Li-Black discloses the method of claim 24, wherein the current allowed rate is adjusted after it is determined that the first intermediate node is coupled to a neighboring node that does not support congestion control (see Black; column 15, lines 10-67).

Regarding **claim 27**, the combination Li-Black discloses the method of claim 25, wherein the first end node is a host (fig. 5, item 144; column 15, lines 10-67).

Regarding **claim 28**, the combination Li-Black discloses the method of claim 27, wherein the second end node is storage (see Black; column 15, lines 10-67).

Regarding **claim 29**, the combination Li-Black discloses the method of claim 25, wherein the first end node is storage (see Black; column 15, lines 10-67).

Regarding **claim 30**, the combination Li-Black discloses the method of claim 29, wherein the second end node is a host (see Black; column 15, lines 10-67).

Regarding **claim 31**, the combination Li-Black discloses the method of claim 25, wherein the current allowed rate is initially the maximum allowed rate (see Black; column 18, lines 12-62).

Regarding **claim 32**, the combination Li-Black discloses the method of claim 31, wherein the current allowed rate is divided by two upon receiving an edge quench frame (see Black; column 18, lines 12-62).

Regarding **claim 33**, the combination Li-Black discloses the method of claim 32, wherein the current allowed rate increases at a recovery rate (see Black; column 18, lines 12-62).

Regarding **claim 34**, the combination Li-Black discloses the method of claim 33, wherein the recovery rate is dynamically set (see Black; column 18, lines 12-62).

Regarding **claim 35**, the combination Li-Black discloses the method of claim 33, wherein the recovery rate is set based on information contained in the received edge quench frame (see Black; column 33, lines 29-64).

Regarding **claim 36**, the combination Li-Black discloses the method of claim 35, wherein the recovery rate is set based on an input queue associated with the second intermediate node (see Black; column 18, lines 12-62).

Regarding **claim 37**, the combination Li-Black discloses the method of claim 22, wherein adjusting the current allowed rate comprises: determining that the second frame is a path quench frame (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 38**, the combination Li-Black discloses the method of claim 37, wherein the current allowed rate is initially the maximum allowed rate (see Black; column 18, lines 12-62).

Regarding **claim 39**, the combination Li-Black discloses the method of claim 38, wherein the current allowed rate is reduced to 0 bps upon receiving an path quench frame (see Black; column 18, lines 2-62).

Regarding **claim 40**, the combination Li-Black discloses the method of claim 39, wherein the current allowed rate increases at a recovery rate (see Black; column 18, lines 12-62).

Regarding **claim 41**, the combination Li-Black discloses the method of claim 40, wherein the recovery rate is dynamically set (see Black; column 18, lines 12-62).

Regarding **claim 42**, the combination Li-Black discloses the method of claim 40, wherein the recovery rate is set based on information contained in the received path quench frame (see Black; column 18, lines 12-62).

Regarding **claim 43**, the combination Li-Black discloses the method of claim 42, wherein the recovery rate is set based on an input queue associated with the second intermediate node (see Black; column 18, lines 12-62).

Regarding **claim 44**, the combination Li-Black discloses a switch for controlling the traffic flow between a source node and a destination node, the switch comprising:

- a first port for coupling to a first external node (fig. 4, item 106);
- a second port for coupling to a second external node (fig. 4, item 102);
- a first queue associated with the first port for receiving data from the first external node being sent to a third node that is reached through the second port and the second external node, the first queue including a first portion for holding data for transmission through the first port and a second portion for holding data for transmission through the second port (see *Li*, column 11, lines 4-50; column 23, lines 1-36); and
- a filter coupled to the first queue, the filter configured to receive data from the first queue and determine whether transmission of the data should be delayed based on information received from and generated by the second external node (see *Black*; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 45**, the combination Li-Black discloses the switch of claim 44, further comprising a filter queues, wherein the filter queues are configured to hold data set for delayed transmission (see *Black*; column 39, lines 28-51).

Regarding **claim 46**, the combination Li-Black discloses the switch of claim 45, wherein each filter queue is associated with a flow (see *Black*; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 47**, the combination Li-Black discloses the switch of claim 46, wherein the flow is traffic from a source node to a destination node node (see *Black*; column 15, lines 34-67; column 21, lines 47-67; column 46, lines 5-38).

Regarding **claim 48**, the combination Li-Black discloses the switch of claim 47, wherein the first queue is a virtual output queue (see Black; column 12, lines 17-61).

Regarding **claim 49**, the combination Li-Black discloses the switch of claim 47, wherein each filter queue is associated with a priority (see Black; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 50**, the combination Li-Black discloses the switch of claim 49, wherein each filter queue is associated with an input port and an output port (see Black; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 51**, the combination Li-Black discloses the switch of claim 44, further comprising a rate limiter coupled to a filter queue (see Black; column 18, lines 12-62)..

Regarding **claim 52**, the combination Li-Black discloses the switch of claim 51, wherein the amount of delay is determined by the rate limiter (see Black; column 18, lines 12-62)..

Regarding **claim 53**, the combination Li-Black discloses the switch of claim 52, wherein the rate limiter uses token buckets (see Black; column 18, lines 12-62)..

Regarding **claim 54**, the combination Li-Black discloses the switch of claim 53, wherein the amount of delay is determined based on information received from the second external node (see Black; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 55**, the combination Li-Black discloses the switch of claim 54, wherein the number of tokens allocated to a filter queue associated with a flow is halved

upon receipt of an edge quench frame from the second external node identifying the flow (see Black; column 39, lines 53-67; column 40, lines 1-51).

Regarding **claim 56**, the combination Li-Black discloses the switch of claim 55, wherein the number of tokens allocated to the filter queue associated with the flow increases at a recovery rate (see Black; column 18, lines 12-62).

Regarding **claim 57**, the combination Li-Black discloses the switch of claim 56, wherein the recovery rate is dynamically determined (see Black; column 18, lines 12-62).

Regarding **claim 58**, the combination Li-Black discloses the switch of claim 56, wherein the recovery rate is set based on second external node queue level information (see Black; column 18, lines 12-62).

Regarding **claim 59**, the combination Li-Black discloses the switch of claim 54, wherein the number of tokens allocated to a filter queue associated with a particular flow is set to zero upon receipt of a path quench frame from the second external node identifying the particular flow (see Black; column 43, lines 50-67; column 44, lines 1-23).

Regarding **claim 60**, the combination Li-Black discloses the switch of claim 59, wherein the number of tokens allocated to the filter queue associated with the flow increases at a recovery rate (see Black; column 18, lines 12-62).

Regarding **claim 61**, the combination Li-Black discloses the switch of claim 60, wherein the recovery rate is dynamically determined (see Black; column 18, lines 12-62).

Regarding **claim 62**, the combination Li-Black discloses the switch of claim 60, wherein the recovery rate is set based on second external node queue level information (see Black; column 18, lines 12-62).

Regarding **claim 63**, the combination Li-Black discloses an apparatus for controlling congestion, the method comprising:

means for receiving a frame having a source identifier field corresponding to a source node and a destination identifier field corresponding to a destination node, the frame having been transmitted to the network switch through a first intermediate switch between the network switch and the source node (see *Li, column 11, lines 4-50; column 23, lines 1-36; see Black; column 43, lines 54-63*);

means for characterizing traffic flow at the network switch (see *Li, column 11, lines 4-50; column 23, lines 1-36*); and

means for sending a first instruction from the network switch to the first intermediate switch to control traffic from the source node to the destination node (see *Li, column 11, lines 4-50; column 23, lines 1-36*).

Regarding **claim 64**, the combination Li-Black discloses the apparatus of claim 63, wherein the first intermediate switch for the first intermediate switch is an edge switch coupled to the source wherein the first instruction is based on the operation of characterizing of traffic flow at the network switch node (see Black; column 15, lines 34-67; column 23, lines 50-67; column 24, lines 1-18).

Regarding **claim 65**, the combination Li-Black discloses the apparatus of claim 64, wherein the first instruction sent to the first intermediate switch comprises an edge quench frame (see Black; column 15, lines 34-67).

Regarding **claim 66**, the combination Li-Black discloses the apparatus of claim 65, wherein the edge quench frame has a source identifier field corresponding to the destination node and a destination identifier field corresponding to the source node (see Black; column 43, lines 50-67; column 44, lines 1-23).

Regarding **claim 67**, the combination Li-Black discloses a computer readable medium for controlling congestion, the computer readable medium comprising:

computer code for receiving a frame having a source identifier field corresponding to a source node and a destination identifier field corresponding to a destination node, the frame having been transmitted to the network switch through a first intermediate switch between the network switch and the source node (see *Li*, column 11, lines 4-50; column 23, lines 1-36);

computer code for characterizing traffic flow at the network switch (see Black; column 35, lines 60-67; column 36; lines 1-59); and

computer code for sending a first instruction from the network switch to the first intermediate switch for the first intermediate switch to control traffic from the source node to the destination node wherein the first instruction is based on the operation of characterizing of traffic flow at the network switch (see Black; column 46; lines 5-38).

Regarding **claim 68**, the combination Li-Black discloses the computer readable medium of claim 67, wherein the first intermediate switch is an edge switch coupled to the source node (see Black; column 15, lines 34-67).

Regarding **claim 69**, the combination Li-Black discloses the computer readable medium of claim 68, wherein the first instruction sent to the first intermediate switch comprises an edge quench frame (see Black; column 15, lines 34-67).

Response to Arguments

9. Applicant's Request for Reconsideration filed on 12/06/2005 has been carefully considered but is not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention,
 - A. the Black patent fails to disclose or suggest, mechanisms for generating or using instructions that are generated but a first intermediate switch (or node) for use by a second intermediate switch (or node), in the manner claimed .
 - B. Applicant contends that the Black patent does not teach a method wherein the first instruction is based on the operation of characterizing of traffic flow at the network switch.
10. As to point A, it is the position of the Examiner that Black patent teaches this limitation of the claimed invention. However, in view of Applicant's remarks, new

patent reference of Li is used in combination with Black to reject this application over an obviousness *prima facie* type of rejection [see *rejection of claim 1 above*].

As to point B, see Li, rejection of claim 1, also see *Li, column 11, lines 4-50; column 23, lines 1-36*.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

JJG

8

February 17, 2006



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100